

Patent Abstracts of Japan

PUBLICATION NUMBER : 2001292043
PUBLICATION DATE : 19-10-01

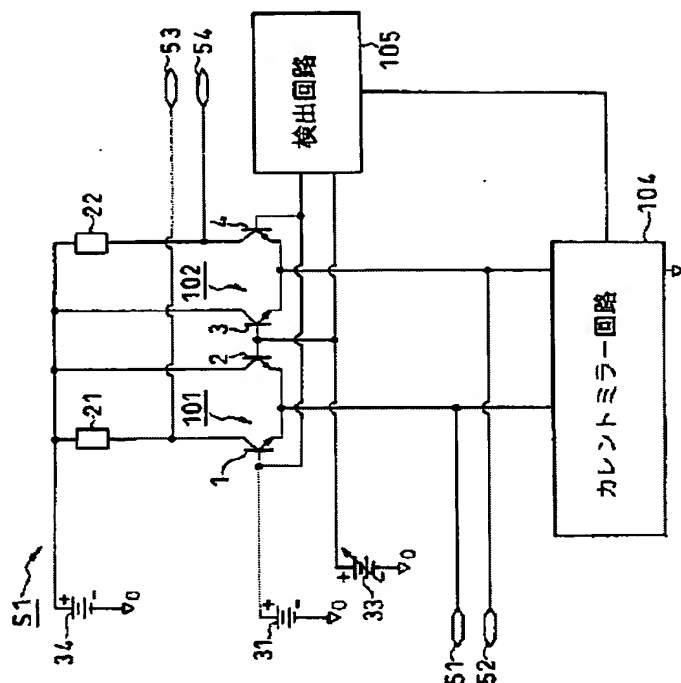
APPLICATION DATE : 06-04-00
APPLICATION NUMBER : 2000104924

APPLICANT : NEW JAPAN RADIO CO LTD;

INVENTOR : USHIDA SUSUMU;

INT.CL. : H03G 3/10 H03F 1/30 H03F 1/32
H03F 3/45

TITLE : VARIABLE GAIN AMPLIFIER CIRCUIT



ABSTRACT : PROBLEM TO BE SOLVED: To provide a variable gain amplifier circuit that can reduce deterioration in the distortion characteristic due to fluctuations in a power voltage.

SOLUTION: The variable gain amplifier circuit is configured such that when an input signal is small and a voltage of a 1st bias power source 31 is higher than a voltage of a variable bias power source 33, a current mirror circuit 104 supplies a prescribed current to 1st and 2nd differential amplifier circuits 101, 102 by the action of a detection circuit 105. When the input signal gets higher, the detection circuit 105 detects a difference between the voltage of the variable bias power source 33 and the voltage of the 1st bias power source 31 and the current mirror circuit 104 supplies a current being a sum of a current corresponding to the voltage difference and the prescribed current in the case of the smaller input signal as above to the 1st and 2nd differential amplifier circuits 101, 102 by the action of the detection circuit 105, and even when the power voltage is reduced, the reduction in the current is suppressed to prevent deterioration in the distortion characteristic.

COPYRIGHT: (C)2001,JPO